BOGDANOV'S INNER MESSAGE

Loren R. Graham

Alexander Bogdanov's novels Red Star and Engineer Menni were popular illustrations of his theories of politics and philosophy. Red Star portrayed developed socialism on the planet Mars and it opposed socialist humanity and cooperation to capitalist cruelty and individualism. The hero, Leonid, held out the hope that socialism could soon be created in Russia. Published almost ten years before the Russian Revolution of 1917, the book was popular among Russian radicals both before and after that date. Engineer Menni, published five years later, in 1913, was based on the success of the earlier work and portrayed the history of Mars during the period of capitalism that preceded the events narrated in Red Star. Let us look more closely at these novels, first Red Star and then Engineer Menni, in an attempt to understand more fully Bogdanov's intentions.

The primary ideological goal of Red Star, the encouragement of revolution, is clear. However, the novel contains a secondary message which has not been noticed, yet which is striking and prescient. Indeed, the novel is an example of how the readers of a utopia may consider it a success yet not understand what the author meant when he wrote it.

Was Red Star merely an effort by Bogdanov to present the Russian workers with a visible model for their revolutionary strivings? At first glance Mars does appear to serve this role, to be a socialist utopia, pure and simple. Many of the goals of European socialists have been realized there: all means of production are common property; class conflict has disappeared; money is no longer used; education is based on collectivist principles; the economy is scientifically and centrally planned, a task accomplished with the help of a computer center; artistic life has been reorganized around the needs of the society as a whole rather than around great individuals; political hierarchy and authoritarianism have disappeared (interestingly, there is no mention of a ruling communist party, nor of any political parties); violence, wars, and racism are similarly absent; medical science has advanced to such a degree that people live

indefinitely long lives; the workers of Mars have escaped the stultifying effects of the division of labor by switching occupations voluntarily whenever they wish; furthermore, they have become inherently fairminded and altruistic, they have dropped all the superfluous conventions of bourgeois society, and they treat each other honestly and sincerely. In sum, Martian society seems to be an inspiring model of socialism, one particularly instructive for Earthlings still struggling with the last phases of exploitative capitalism.

And yet if one penetrates beyond this obvious message of social wellbeing on Mars, one finds that Bogdanov has given Mars another whole set of surprising characteristics that introduce elements of dystopia into his picture of socialism. When the Earthling Leonid remarks to one of his Martian friends that Mars seems so happy and peaceful, the reply is, "Happy? Peaceful? Where did you get that impression?" And the Martian then tells Leonid of the multitude of problems facing socialist Mars. Many of the industries are so dangerous that they must be kept underground: the population is growing so rapidly that food shortages and even famines are predicted within several decades; natural resources are rapidly being exhausted, as is the radioactive matter that is the main source of energy: in order to continue to utilize their diminishing minerals the Martians have been forced to destroy their beloved forests and degrade their environment; the prolongation of life by advanced medicine has resulted in the problem of forcing people to decide when to end their own lives, and suicide clinics are provided for that purpose.

The favorite form of drama on Mars is tragedy. Even some of the blessings of socialism have brought their unfortunate reverse sides: the elimination of the division of labor has increased the accident rate in Martian factories, as workers shift from one workplace to another, constantly using machines with which they are not familiar. And nervous disorders have not disappeared, but instead are one of the two most common forms of illness. Most surprising of all, instead of colonialism being merely one of the last stages of decadent capitalism, as Marxists usually believed, socialist Mars has created a Colonial Group in its government and is preparing to create colonies on either Earth or Venus, or both.

Why does this pessimism show up so clearly in Bogdanov's writings? Was he secretly out of sympathy with the Marxism to which he professed allegiance? Was he an early apostle of the dangers of socialism, an antecedent of such writers as Orwell?

A careful study of Bogdanov's life and writings shows that, contrary to the implication of these questions, he was a sincere, albeit idiosyncratic, Marxist who was committed to the construction of socialism. But he believed that even after socialism had been successfully created, civilization would be plagued by a whole series of problems, which we would

now probably recognize as problems of "postindustrial societies." Bogdanov was brilliantly prescient in sketching out issues that would face all industrialized nations two generations after he first conceived them: the dangers of atomic energy, the problems of preserving the environment, the dilemmas of biomedical ethics, and the shortages of natural resources and food. Indeed, Bogdanov believed that nature was a far more implacable foe than the class enemy. The capitalists would eventually be defeated, but nature never would be; as one of his Martian heroes observed, "the tighter our humanity closes ranks to conquer nature, the tighter the elements close theirs to avenge the victory."

We begin to see, then, that a proper appreciation of Bogdanov's importance requires that he be regarded as much more than a Russian revolutionary trying to rally the spirits of a discouraged proletariat. He was a deeply original thinker about the relationship of science and society. He would have fitted well into one of the university programs formed in the United States and Europe in the late seventies on "Science, Technology and Society."

In one of the most interesting passages in *Red Star* a Martian tries to explain to Leonid why the problems which plague Mars are so incomprehensible to Earthlings. The Martian observes that the reason these issues are "beyond your understanding is because in your world they are eclipsed by others which are more direct and obvious." These more obvious problems are the struggles between classes, groups, and individuals. Thus, Bogdanov believed that only after the proletarian revolution had been successful and had eliminated struggles among human beings would they see that a more daunting battle still lay ahead: the struggle of united humanity to avoid being overwhelmed by the by-products of its own technological successes. No wonder that Lenin had his doubts about whether Bogdanov's writings were adequately inspiring!

The utopian novels Red Star and Engineer Menni were based on philosophical principles which Bogdanov worked out in detail in technical articles and books. Understanding Bogdanov, then, requires looking at these other works and then returning to his novels about the Red Planet. We will find in his technical treatises two basic ideas that influenced all of Bogdanov's work and life: the first was an explanation of why people disagree on so many topics, the second, an effort to show how, despite these disagreements, understanding is still possible. These two ideas—the one pessimistic, the other optimistic—were imbedded in Bogdanov's personality, driving him alternately to revolutionary hopefulness and individualistic despair.

Bogdanov's two major theoretical works were Empiriomonizm (1904-1907) and Tektologiia (1913-1929). The first was in process at the time of the writing of Red Star, and the second was similarly underway at the moment of the writing of the sequel, Engineer Menni; the underlying

a/

principles of both show up clearly in the novels. In Empiriomonizm Bog-danov maintained that the key to knowledge lay in the principles of its organization, not in a search for "reality" or "essence." Neither materialism nor idealism, therefore, was an appropriate or useful epistemological position. Bogdanov preferred to follow the path of Ernst Mach and Richard Avenarius in denying the dualism of sense perceptions and physical objects, but he believed that they had not gone far enough in explaining the existence of two different realms of experience, the subjective (e.g., emotions and impulses) and the objective (e.g., sight, sound, smell). Bogdanov attempted to unite these realms in a new philosophical system, empiriomonism, by deriving the physical world from "socially organized experience" and the mental world from "individually organized experience." The two worlds revealed two different "biological-organizational tendencies."

Why, asked Bogdanov, do people differ so radically about the second realm, the sphere of individually organized values? The answer, he thought, was that people are torn apart by conflicts that derive from differences in class, race, sex, language, or nationality, by specialization arising from technical knowledge, and by relations of dominance and subordination of all kinds. If these conflicts could be overcome, he continued, a new consciousness would emerge, as a result of which people would be in much greater agreement about values than ever before.

Bogdanov believed that, in fastening upon class conflict as the key to explaining social strife, Marxism was a great liberating force, but that class difference was only one of several sources of social struggle. He wished to generalize Marxism, to show that the framework of Marxism could be widened to include the other sources of social disruption as well. He paid particular attention to male-female relationships, noticing that women and men on Mars were much more physically similar than on Earth, and concluded that on earth "it is the enslavement of women in the home and the feverish struggle for survival on the part of the men which ultimately account for the physical discrepancies between them." But to Bogdanov male-female differences were just one of many possible sources of social conflict. To him, any relationship of domination and subordination, whether based on sex, race, class, nationality, or possession of technical knowledge, was also appropriate for criticism within a broader Marxism.

So much for the sources of strife among people. How did Bogdanov believe that these differences could be overcome? In developing his concept of "tectology" Bogdanov tried to find through structural analogies and models the organizational principles that would unite under one conceptual scheme "the most disparate phenomena" in the organic and inorganic worlds. Tectology to Bogdanov was a potential metascience both of nature and of society, a unifying concept that would allow human beings torn apart by strife to find a common language. Since the sources

of strife were larger than the merely economic, the common language must be larger than traditional Marxism, although it would include Marxism as a special case.

All objects which exist, he wrote, can be distinguished in terms of the degree of their organization. According to Bogdanov the key to understanding the world is organizational analysis. As Netti explained in the epilogue to Engineer Menni, "no matter how different the various elements of the universe—electrons, atoms, things, people, ideas, planets. stars—and regardless of the considerable differences in their combinations, it is possible to establish a small number of general methods by which any of these elements joins with another." Entities on higher levels of organization possess properties that are greater than the sum of their parts. Living beings and automatic machines are dynamically structured complexes in which "bi-regulators" provide for the maintenance of order. Recent commentators on Bogdanov have pointed repeatedly to the apparent prefiguring here of the concept of cybernetic feedback. Bogdanov called for the application of concepts of bi-regulation and a degree of organization in his "universal organizational science" that would embrace the biological and social worlds in the way in which mathematics had described classical mechanics. When Bogdanov called his system "universal" he meant not only that it was equally applicable to all complicated systems, natural and social; he meant also that it was the common language that might unite individuals torn apart by their "individually organized experience."

Although Bogdanov struggled manfully to complete his universal philosophical system of tectology, eventually writing a three-volume treatise on the subject, one senses that he realized that it was never complete. He was more successful at describing the issues that divided human beings than he was in developing an intellectual scheme that would allow them to unite again with a common language. Hence, Bogdanov's optimistic struggle to find universal understanding is periodically disrupted by his pessimistic realization that it will never quite happen, that the divisive forces are too strong, that history—on Earth at least—will continue its bloody, barbaric path.

When Bogdanov wrote Red Star he was trying to explain to himself why his task was so difficult, why he so often despaired of its completion. He took the path of maintaining that Earth was an incredibly unfortunate place to live if one dreamed of creating a new socialist civilization in which strife would disappear. Compared to Mars, Earth was violent, fratricidal, divided. In explaining this unfortunate uniqueness of Earth, Bogdanov analytically followed the evolutionary naturalism that was so popular among many Russian revolutionaries. Science and nature lay behind the social brutality of the residents of Earth. The planet Earth was closer to the sun and larger in size than Mars, and therefore life on Earth differed

from life on Mars in several important ways. First of all, the warm rays of the sun infused life on Earth with more energy and a faster rate of metabolism. Second, the large size of Earth, compared to Mars, meant that the force of gravity on Earth was stronger, causing Earthlings by necessity to evolve with greater physical strength to counter this binding force.

As a result of their rapid metabolism and physical force, Earthlings, compared to Martians, were irascible, even violent. They loved more deeply and they fought harder. At one point Netti turned to Leonid and remarked, "Your love is like murder." And Leonid learned that even during the period of the socialist revolution on Mars the struggles between the socialists and the capitalists had never been very violent; the Martian capitalists, unlike their brethren on Earth, gave up rather easily. Martians and Earthlings were simply very different in terms of their basic constitutions; a physician of the seventeenth century, classifying humans in terms of the Galenic humors, would have observed that Earthlings were choleric, Martians phlegmatic. And behind these differences lay natural forces.

But the physical violence of Earthlings was just the beginning of their misfortunes. They were hopelessly divided among themselves linguistically and nationally. In explaining this linguistic diversity Bogdanov employed science to the same effect that Earthlings used the Old Testament story of the Tower of Babel. Genesis tell us that God punished the builders of the Tower for their presumption by confusing their tongues. Bogdanov writes that because the planet Earth was much larger than Mars, and because it was divided by great oceans, the humans who inhabited it split into groups that could not physically stay in contact. The various groups and tribes developed instead into separate language communities, and, eventually, nations. When socialism arrived on the historical scene and tried to unite the inhabitants of Earth under a common banner, the effort often foundered on the nationalistic wars that the Earthlings continued to support against each other. In this regard, as in so many others. Mars was different. Easily bound together by communication and transportation even in its early history. Mars had remained an organic whole and had never been plagued by great wars.

All of this seems to add up to a heavy condemnation of Earthlings in comparison to Martians. Yet Bogdanov was too subtle to leave the situation so one-sidedly in favor of the Martians. (Or was even he infected by a bit of patriotic loyalty to his home planet?) The highlight of Red Star is the debate between Sterni and Netti over whether the Martians should exterminate the Earthlings in their struggle to find more natural resources. Sterni takes the position that Earthlings are so hopelessly malformed by their evolutionary past, and so irrevocably prejudiced by nationalism, that even the Earth's socialist minority would never be able to find a way to work together amicably with their fellow socialists on Mars. If the

Martians try to utilize the natural resources of Earth in place of their own exhausted resources, the Earthlings will rise up in rebellion, refusing to recognize that Martian civilization is vastly superior to their own. The Martians will get involved in a hopeless guerrilla war waged against them by the ferocious Earthlings. The superior technology of the Martians will mean that the Earthlings cannot win this struggle, but the militant spirit of the Earthlings will guarantee an indefinite and costly war. The only way to avoid this ordeal, said Sterni, is to wipe them out in advance with death rays, and then use the riches of Earth to build a more humane socialism on Mars.

The speech of Leonid's lover Netti in reply to Sterni is the most moving section of the entire novel. Netti's argument even reminds one of recent ecological treatises on the importance of diversity in nature; Netti's sympathy for Earthlings resembles contemporary ecologists' arguments for preservation of dolphins or whales. She reprimands Sterni for proposing to eliminate "an entire individual type of life, a type which we can never resurrect or replace." Sterni, she says, "would drain forever this stormy but beautiful ocean of life." He does not recognize, she continues, that "the Earthlings are not the same as we. They and their civilization are not simply lower and weaker than ours—they are different." There may even be some advantages in the differences; although the presence of many languages on Earth enforces national prejudices and splinters understanding, this diversity of means of expression also has "liberated notions from the tyranny of the words by which they are expressed."

One should remember that Mars and Earth in this story are not simply two different planets; they also represent, in accordance with Marxism, the two successive historical epochs of capitalism and socialism. Within the orthodox Marxist framework, there is no doubt that socialism is viewed as superior. But when we see the tolerance and love of heterogeneity that Bogdanov expresses through Netti, can we wonder about how he will react after the Russian Revolution to the campaign to wipe out "the vestiges of capitalism"? Leonid learns from the Martians that they have retained, because of inherent esthetic attraction, forms of literature that originated before the arrival of socialism; one Martian comments that "if rhyme really is of feudal provenance, then the same may be said of many other good and beautiful things." Bogdanov's intellectual colleague Lunacharsky wept when he heard that the victorious Bolshevik forces were shelling the architectural and artistic treasures in the tsarist Kremlin. Bogdanov was similarly tortured by his simultaneous commitments to the new age of socialism and his respect and admiration for human creation in the diversity of all its forms, including that of capitalism.

But it is not only communication between historical epochs that concerns Bogdanov; he is also deeply interested in how individuals com-

municate. If, as Marx believed, social being determines consciousness, how can two humans with completely different backgrounds (for example, capitalism and socialism) ever communicate with each other in mutually understandable terms?

Leonid serves as Bogdanov's example of how difficult it is for an individual to live in two dramatically different epochs. The Martians who landed on Earth searched everywhere for a person who could "serve as a living link between the human races of Earth and Mars." At first they despaired, but finally they found Leonid, a Russian revolutionary. They considered him to be the most advanced Earthling, in terms of social views, whom they had seen. Yet when Leonid arrived in Mars he had great psychological difficulties in adjusting to life there. When he studied Martian literature he found that "its images seemed simple and clear, yet somehow they remained alien to me." When he learned that his lover Netti had been married to several men at the same time. Leonid, despite his belief in free love, reacts with the cry, "Why then this agitated bewilderment, this incomprehensible pain that made me want to scream and laugh at the same time? Was it that I did not know how to feel as I thought?" When Leonid tried to learn the principles of Martian science his response was: "Their scientific methods bewildered me. I learned them mechanically . . . [but] I did not really understand them. . . . I was like those mathematicians of the seventeenth century whose static thought was organically incapable of comprehending the living dynamism of infinitely small quantities." When Leonid tried to work alongside Martians in a clothing factory he found that he lacked "the culture of concentration" and could not keep up with their work tempo. He was humiliated when they constantly had to help him, even with simple tasks.

The difficulty of communicating across this chasm provides much of the tension in both *Red Star* and its sequel, *Engineer Menni*. It explains Leonid's nervous breakdown while living on Mars; his murder of Sterni; the difficulties he, as an Earthling, has in loving the Martian Netti; and the painfulness of his recovery while in the hospital back on Earth. It also underlies the "wrecking" activities of some engineers trained before the Martian revolution, people who are constitutionally incapable of adjusting to the new socialist order. (The "wrecker" phenomenon was an uncanny prediction of later Soviet attitudes toward bourgeois engineers, including their prosecution.)

The incommensurability of language in different epochs is a particularly strong element in the novel Engineer Menni. Here in one family, the ancient ducal house of Aldo, three successive generations of strong men—Ormen, Menni, and Netti—fall into three completely different historical epochs—feudalism, capitalism, socialism—and are incapable of understanding each other. Old Duke Ormen Aldo was a convinced feudalist who could not adjust to the successful republican revolution that swept

Mars. At first he pretended to go along with the new order, but at the first opportunity he rose up in rebellion and tried to reestablish the old aristocracy, just as Henri La Rochejacquelein of the Vendée in France had done after the French Revolution. And of course Ormen failed to turn back the clock. Ormen's son, Menni, received a republican education in isolation from his father and became Mars's greatest engineer. In politics, Menni was equally opposed to the surviving feudal elements in Mars and to the rising proletariat. At first Menni was a great success, but gradually he, too, was overtaken by events. The workers turned against him because of his antipathy to the unions. Menni's son, Netti, raised in isolation as a worker, was a convinced defender of socialism, a viewpoint that Menni never could understand. As Netti said to his father, "You have a different consciousness. . . . It is the consciousness of the class which preceded the proletariat."

The poignant relationship between Menni and Netti reveals Bogdanov's ambiguity about the harsh judgments inherent in class conflict. It is obvious that Menni and Netti love each other deeply, but the labor leader Arri correctly observes that "Menni and Netti are natural enemies. . . . No matter how they try, life will bring them into conflict, violent conflict. They love and respect each other very much, but that will only make their clash the more painful." Bogdanov entitled one of the chapters describing Menni's and Netti's conversations "Two Kinds of Logic," illustrating the unbridgeable gap between these representatives of different classes, and Menni tells his son "Your words are all simple and clear, yet your thoughts remain strange and incomprehensible to me."

Toward the end of this second novel, Menni is called by history to perform the reactionary role of his father, Duke Ormen, to revolt against developing socialism just as his father revolted against capitalism. The Vampire who comes to him in a vision urges "You know what you must do. You must once again become yourself. . . . The idyll with the unions will not last much longer. . . . It will mean breaking with Netti and Nella, a bitter struggle, a great sacrifice. Yes, but also a great victory!"

Menni knows that the Vampire is correct in his assertion that Menni cannot become a true socialist; he irretrievably belongs to the previous order. The Vampire exults in this knowledge, crying: "Hear the voice of a sovereign! . . . You are mine, you are mine, you are mine!" Menni also knows that cooperation with his socialist son Netti has now gone beyond the breaking point. But in a desperate act inspired by love for Netti and Nella, Menni refuses to play the role of his father, and defeats the iron logic of history in the only way it can be defeated, by committing suicide. His lover Nella sings to him at his death, "Lest life be stayed or hampered/You leave the ranks; your struggle ends."

Russian radical readers of Bogdanov recognized the best elements of the prerevolutionary Russian technical intelligentsia in Engineer Menni.

And they saw other familiar elements in the novel. The great economist "Xarma" is unmistakably Marx. The debate between Menni and Netti over whether a minority of workers belonging to radical unions should be recognized as the sole representatives of the working class was a raging discussion in Russian left-wing circles. The suspicion of engineers by workers was a current in prerevolutionary Russia that would continue after the Revolution, and would be cruelly manipulated by Stalin. And Netti's opinion that a person's political beliefs were often hidden from view was endemic among Russian revolutionaries, always suspicious of counterrevolutionary conspiracies. As Netti observed, "Here I am, I meet different people, live with them, trust them, even love them, but do I always know who they really are?"

In Engineer Menni Bogdanov illustrated more fully than in Red Star his concern about the role that science would play during a revolution. Does knowledge lead to freedom, or is it just one more weapon in the hands of the upper-class oppressors, who have the advantage of better education? The workers who are trying to figure out whether a canal must be dug through the dangerous Rotten Bogs or along another path are confused and frustrated by the differing arguments on the subject given by the "specialists," many of whom they do not trust politically. A young worker asks why workers always have to believe specialists. "Isn't this slavery, the worst form of slavery? What must we do so that we ourselves can know and see, and not just constantly believe?"

This suspicion of bourgeois specialists would come out strongly after the Russian Revolution. Perhaps it was expressed most graphically by Alexandra Kollontai, a leader of the Workers' Opposition, who asserted that the technical specialists were "remnants of the past, by their entire nature closely, unalterably bound to the bourgeois system that we aim to destroy." 5

Bogdanov was committed both to revolution and to science, and he struggled to find a way to have the first without throwing out the second. In *Engineer Menni* the proletarian engineer Netti explained, "Thus far science is the weapon of our enemies. We will triumph when we have made it our weapon. . . . The proletariat must master it by changing it." The new science transformed by the workers would be "Universal Organizational Science," in other words Bogdanov's favorite intellectual creation, tectology.

Bogdanov's novels tell us much about Russia at the time of their composition, the last decade of tsarism, but they also may tell us something about the strange story of Bogdanov's death. In a 1928 obituary entitled "The Tragedy of a Great Mind," his old friend and fellow revolutionary P. N. Lepeshinsky wrote that Leonid in the utopian novels was the "alter ego," even the "twin," of Bogdanov himself, and that the clue to Bogdanov's life and death could be found in his literary creations.

Lepeshinsky also remarked that the "walls of the institute" where Bogdanov spent his last days may have been "the witness of a secret Bogdanov drama," the last chapter of a life that united reality and literature."

Bogdanov in the years of Soviet power stood aside from politics and immersed himself in scientific and literary activities. One of his major concerns was blood transfusion, a technique that became popular in World War I. To Bogdanov, blood transfusion acquired almost metaphysical overtones: it was a way to rejuvenate the exhausted human organism, and it was a symbol of the future of medicine in which the replacement of parts of the body would become routine. He created an institute for blood transfusion, and devoted himself to a series of experiments aimed at improving the technique.⁷

While Bogdanov, after the Russian Revolution, turned more and more toward science, he did not give up his literary aspirations. Indeed, he was planning a third book in the series of utopian novels that began with Red Star. A few years after the Revolution he wrote a poem, included in this volume, giving the outlines of the third book. The third novel would be, in a sense, the mirror image of Red Star; instead of revolving around an Earthling's attempt to adjust to life on Mars, it would concern the difficulties encountered by a Martian who tries to live on Earth.

In the poem, a Martian space ship crashes on Earth while attempting to land, and only one Martian survives. With his means of transportation destroyed, the Martian has no alternative but to adjust to terrestrial life. Yet he finds life on Earth to be so cruel and predatory that it is, for him, the same as hell. His faith that eventually the inhabitants of Earth will find the path to humane socialism such as that which exists on his native Mars is not enough to sustain him. Just as Leonid had fallen into melancholy as he tried to comprehend life on Mars, so the shipwrecked Martian plunges into despair on Earth. The chasm separating incompatible modes of cognition that so preoccupied Bogdanov as a philosopher once again emerges in his literary work.

It seems likely that, metaphorically speaking, Bogdanov considered himself to be a shipwrecked Martian looking upon the crudities of Earthly life. He believed that his philosophical systems of empiriomonism and tectology gave him the sort of understanding that the members of an advanced socialist society like his fictional Mars possessed. In an intellectual sense, Bogdanov believed that he had already lived on Mars, but reality condemned him bodily to live on Earth before socialism was successfully created there. Early Soviet Russia was to him not socialism but that life "that wretchedly gropes on in vain / Toward happiness, seeking to be free."

In the late twenties, as Stalin gradually tightened his control over the Soviet Union, it became more and more difficult for a sensitive intellectual like Bogdanov to retain his faith that Russian socialism would ever

find its way. He must have been haunted by the words he had put in the mouth of Sterni years earlier; Sterni had maintained that even if socialism begins to develop on Earth it will be "perverted deeply" and turn toward militarism because of its unfortunate environment.

Bogdanov must have felt like his hero Leonid in Red Star after he returned to Earth; Leonid found life there almost unbearable. He commented, "The new life is inaccessible to me, while I do not want the old one, to which I no longer belong either intellectually or emotionally." Leonid decided to join the revolutionary struggle, and Dr. Werner wrote that "by exposing himself to the dangers there he is evidently indirectly trying to commit suicide."

In real life in early 1928 some of the events described in the utopian novels seemed to be coming true in Stalinist Russia, but in a way that shocked Bogdanov. The secret police announced that it had discovered a counterrevolutionary conspiracy among the engineers of the coal mines in the Ukraine. Fifty-three engineers and technicians were to be brought to court under accusations punishable by death. Bogdanov must have seen in the looming Shakhty trial the grotesque perversion of the ideas in his novels.

On April 7, 1928, the day after a special plenum of the Central Committee of the Communist Party had been called by Stalin to consider the Shakhty conspiracy, Bogdanov conducted an experiment on himself that, as a physician, he well understood was likely to be fatal. He exchanged his own blood with that of a young student who was suffering from both malaria and tuberculosis. He continued making detailed observations on his own condition until the last minutes of his life. His colleagues were amazed by the nonchalance with which he approached death, loyal to the attitude of the Martian physician attending the "room for the dying" who remarked that death "was only death, and no more." (The student with whom Bogdanov exchanged blood, a man named Koldomasov, lives on in the Soviet Union to the present day.)

Thus, Bogdanov's death bears a striking resemblance to that of Engineer Menni in Bogdanov's novel, who dreamed about the meaning of death just before his act of suicide. Menni's hope was that "the greatness of death will fuse with the greatest act of creation, the moment which will conclude our life only to pass its soul on to our brothers, whoever they may be!"

NOTES

- 1. No definitive intellectual biography of Bogdanov exists, and there is not even a complete bibliography of his voluminous works. Major works on him are listed here in the selected bibliography: see especially Grille 1966 and Jensen 1978; see also Jensen 1982, Haupt 1974, Vucinich 1976, Ballestrem 1969, Shcheglov 1937, and Utechin 1962. For an article emphasizing Bogdanov's importance in the history of science, see Graham 1977. Bogdanov wrote a short autobiography in Entsiklopedicheskii slovar', XLI (1926).
- 2. Susiluoto 1982, Iakhot 1982, and Setrov 1967. I am grateful to Zenovia Sochor for drawing the Iakhot reference to my attention.
- 3. Not only did he weep, but, upon hearing of the destruction of St. Basil's and the Uspensky Cathedral, he resigned from the Bolshevik government. When he learned that the reports were false, he withdrew his resignation. See Fitzpatrick 1970, pp. 13-14.
- 4. Boris Souvarine wrote that the novel had a great influence on Bolshevik leaders, including Stalin. One cannot help but wonder if Stalin derived part of his suspicions of engineers as "bourgeois wreckers" from the novel. See Souvarine 1939, p. 504.
 - 5. Kollontai 1968, p. 6.
 - 6. Lepeshinsky 1928, p. 265.
 - 7. Bogdanov 1927.
- 8. Interview with Bogdanov's son, A. A. Malinovsky, Moscow, 20 January 1983.

Selected Bibliography

Bogdanov and Related Matters

- Bailes, Kendall. 1977. "Alexei Gastev and the Soviet Controversy over Taylorism," Soviet Studies 29/3 (July 1977).
- Ballestrem, Karl. 1969. "Lenin and Bogdanov," Studies in Soviet Thought 9 (December 1969).
- Bogdanov, A. A. (Aleksandr Aleksandrovich Malinovsky). 1904-07. Empiriomonizm, 3 vols. Moscow and St. Petersburg.
 - ----. 1908. Krasnaya zvezda. St. Petersburg.
- ----. 1913. Inzhener Menni. Moscow.
- ------. 1926. "Avtobiografiya," Entsiklopedicheskii slovar', XLI, 29-34. 1926.
 -------. 1927. God raboty Instituta perelivaniya krovi (1926-1927). Moscow.
- Britikov, A. F. 1970. Russkii Sovetskii nauchno-fantasticheskii roman. Leningrad. Brooks, Jeffrey. 1978. "Readers and Reading at the End of Tsarist Russia," in William M. Todd, ed., Literature and Society in Imperial Russia. Stanford: Stanford University Press.
- Fetzer, Leland, ed. and tr. 1982. Pre-Revolutionary Russian Science Fiction: An Anthology (Seven Utopias and a Dream). Ann Arbor, MI.: Ardis Publishers.
- Fitzpatrick, Sheila. 1970. The Commissariat of Enlightenment. Cambridge: Cambridge University Press.
- Graham, Loren R. 1977. "Alexander Bogdanov," Dictionary of Scientific Biography, Supplementary Volume. New York: Charles Scribner's Sons.
- Gregg, Percy. 1880. Across the Zodiac. 2 vols. London.
- Grille, Dietrich. 1966. Lenins Rivale: Bogdanov und seine Philosophie. Cologne: Verlag Wissenschaft und Politik.
- Haupt, Georges. 1974. "Aleksandr Aleksandrovich Bogdanov (Malinovsky)," pp. 289–292 in G. Haupt and Jean-Jacques Marie, Makers of the Russian Revolution. Ithaca: Cornell University Press.
- Iakhot, Iegoshua. 1982. "Gibel' tektologii Bogdanova—predshestvennitsy kibernetiki i sistemnoi teorii," in SSSR: Vnutrennye protivorechiya (No. 3, 1982), 227-273.
- Ingold, Felix Philipp. 1978. Literatur und Aviatik: europäische Flugdichtung 1909-27. Basel.
- Jensen, Kenneth. 1978. Beyond Marx and Mach: Aleksandr Bogdanov's Philosophy of Living Experience. Dordrecht: D. Reidel.
- ——. 1982. "Red Star: Bogdanov Builds a Utopia," Studies in Soviet Thought 23/1 (January 1982), 1-34.

- Joravsky, David. 1961. Soviet Marxism and Natural Science (1917–1932). London: Routledge and Kegan Paul.
- Khazanova, V. E. 1980. Sovetskaya arkhitektura pervoi pyatiletki: problemy goroda budushchego. Moscow.
- Kline, George. 1969. Nietzschean Marxism in Russia, pp. 166-183 in F. J. Adelmann, ed., Demythologizing Marxism. The Hague: Martinus Nijhoff.
- Kollontai, Alexandra. 1969. "The Roots of the Workers' Opposition," Solidarity Pamphlet. London.
- Lasswitz, Kurd. 1971. Two Planets. H. Rudnik, tr. Carbondale: Southern Illinois University Press. Translation of Auf zwei Planeten.
- Lepeshinsky, P. 1928. "Tragediya krupnogo uma," Ogonëk 17 (22 April 1928), 265. Lowell, Percival. 1906. Mars and its Canals. London.
- McGuire, Patrick. 1977. Red Stars: Political Aspects of Soviet Science Fiction. Ph.D. dissertation, Princeton University.
- Omelchenko, A. P. 1908. Svobodnava lyubov i semua. St. Petersburg.
- Scherrer, Jutta. 1978. "Les écoles du Parti de Capri et de Bologna," Cahiers du monde russe et soviétique, 3/19 (1978), 258-284.
- Setrov, M. I. 1967. "Ob obshchikh elementakh tektologii A. Bogdanova, kibernetiki i teorii sistem," Uchënye zapiski kafedr obshchestvennykh nauk vuzov goroda Leningrada (No. 8, 1967), 49-60.
- Shcheglov, A. V. 1937. Borba lenina protiv bogdanovskoi revizii marksizma. Moscow.
- Souvarine, Boris. 1939. Stalin: A Critical Survey of Bolshevism. New York: Longmans, Green and Company.
- Susiluoto, Ilmari. 1982. The Origins and Development of Systems Thinking in the Soviet Union: Political and Philosophical Controversies from Bogdanov and Bukharin to Present-Day Reevaluations. Helsinki.
- Suvin, Darko. 1971. "The Utopian Tradition in Russian Science Fiction," Modern Language Review 66/1 (1971), 139-159.
- Utechin, S. V. 1962. "Philosophy and Society: Alexander Bogdanov," pp. 117-125 in L. Labedz, ed., Revisionism. New York: Praeger.
- Vechnoe solntse: russkaya sotsialnaya utopiya i nauchnaya fantastika (vtoraya polovina XIX veka-nachalo XX veka), pp. 248-379. Moscow. (Bogdanov, Krasnaya zvezda.)
- Von Braun, Werner, and Frederick Ordway. 1969. History of Rocketry and Space Travel. rev. ed. New York.
- Vucinich, Alexander. 1976. Social Thought in Tsarist Russia: The Quest for a General Science of Society, 1861–1917. Chicago: University of Chicago Press.
- Williams, Robert C. 1980. "Collective Immortality: The Syndicalist Origins of Proletarian Culture, 1905–1910," Slavic Review 3/39 (September 1980), 389–402.

Utopias and Works of Science Fiction in Russian 1895-1915 (in chronological order)

V. N. Chikolev. 1895. Ne byl, no i ne vydumka—elektricheskii raskaz (Fiction but not Fantasy—an Electric Tale). St. Petersburg.

- K. E. Tsiolkovsky. 1896. Vne zemli: nauchno-fantasticheskaya povest (Beyond the Earth: A Science Fiction Story). Moscow, 1958.
- A. I. Krasnitsky. 1900. Za pripodnyatoyu zavesoi: fantasticheskaya povest o delakh budushchago (XX vek). (Behind Upraised Curtains: A Fantastic Story about Things in the Future (the 20th Century)). St. Petersburg.
- L. B. Afanasev. 1901. "Puteshestvie na Mars" (Journey to Mars). Niva 1 (January 1901), 275-330, and Niva 3 (March 1901), 483-534.
- August Bebel. (1905). Budushchee obshchestvo (The Society of the Future). Translated from German (1905). Moscow. 1918.
- Atlanticus (pseud. of Karl Ballod). 1906. Gosudarstvo budushchago (The Future State). Translated from German. Preface by Karl Kautsky. Moscow.
- N. Fedorov. 1906 Vecher v 2217 godu (An Evening in the Year 2217). St. Petersburg.
- I. Morskoi. 1907 Anarkhisty budushchago—(Moskva cherez 20 let: fantasticheskii roman) (Anarchists of the Future—Moscow in 20 Years: A Novel of Fantasy). Moscow.
- Jack London. 1908. Zheleznaya pyata (The Iron Heel). Moscow, 1918.
- V. Semënov. 1908. Tsaritsa mira: roman-fantaziya (Empress of the World: A Fantasy Novel). St. Petersburg.
- N. A. Morozov. 1910. Na granitse nevedomago (On the Verge of the Unknown). Moscow.
- V. Ya. Bryusov. 1910 Zemnaya os (Axis of the Equator). 2nd. ed. Stories, 1901-1907. Moscow.
- A. Ossendovsky. 1915. Zhenshchiny, vostavshiya i pobezhdënnyya: fantasticheskaya povest (Women Insurgent and Repressed: A Fantastic Story). Moscow.

LOREN R. GRAHAM is Professor of the History of Science at MIT and author of many books on the history of Soviet science. His most recent book is *Moscow Stories* (Indiana University Press, 2006).

RICHARD STITES is Professor of History at Georgetown University. His most recent book is Serfdom, Society, and the Arts in Imperial Russia.

CHARLES ROUGLE is Associate Professor of Slavic and Eurasian Studies at the University of Albany. He is editor of *Red Cavalry: A Critical Companion* and translator of many works from Russian.

"Bogdanov's novels reveal a great deal about their fascinating author, about his time and, ironically, ours, and about the genre of utopia as well as his contribution to it."

-Slavic Review

"Bogdanov's imaginative predictions for his utopia are both technological and social. . . . Even more farsighted are [his] anxious forebodings about the limits and costs of the utopian future." — Science Fiction Studies

"The contemporary reader will marvel at [Bogdanov's] foresight: nuclear fusion and propulsion, atomic weaponry and fallout, computers, blood transfusions, and (almost) unisexuality." — Choice

INDIANA University Press Bloomington & Indianapolis http://iupress.indiana.edu 1-800-842-6796

communist society on Mars, the Russian Revolution, and class struggle on two planets are the subjects of two remarkable science fiction novels by Alexander Bogdanov (1873-1928), one of the early organizers and prophets of the Russian Bolshevik Party. While portraying a harmonious and rational socialist society, Bogdanov sketches out the problems that will face industrialized nations, whether socialist or capitalist. He points to such timely issues as the dangers of atomic energy, the preservation of the environment, the dilemmas of biomedical ethics, and shortages of natural resources and food. This volume includes the novels Red Star (1908) and Engineer Menni (1913) and a poem, "A Martian Stranded on Earth" (1927). Essays by Richard Stites and Loren R. Graham provide the political, social, and cultural context for these classic works of Russian science fiction.

LOREN R. GRAHAM is Professor of the History of Science at MIT and author of many books on the history of Soviet science. His most recent book is *Moscow Stories* (Indiana University Press, 2006).

RICHARD STITES is Professor of History at Georgetown University. His most recent book is Serfdom, Society, and the Arts in Imperial Russia.

CHARLES ROUGLE is Associate Professor of Slavic and Eurasian Studies at the University of Albany. He is editor of *Red Cavalry: A Critical Companion* and translator of many works from Russian.

